



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2012-0298; Directorate Identifier 2011-NM-072-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc., Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc., Model DHC-8-400, -401, and -402 airplanes. This proposed AD was prompted by reports of cracking of certain fuel access panels of the outer wing. This proposed AD would require an external inspection, and if necessary an internal inspection, to determine if certain fuel access panels are installed, and replacement if necessary; optional repetitive inspections for cracking of the fuel access panels, and replacement if necessary, would defer the internal inspection; and eventual replacement of affected fuel access panels with new panels. We are proposing this AD to prevent cracking of fuel access panels, which could result in arcing and ignition of fuel vapor in the outer wing fuel tank during a lightning strike.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the

instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; e-mail [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES

section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Westbury, NY 11590; telephone (516) 228-7329; fax (516) 794-5531.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0298; Directorate Identifier 2011-NM-072-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

**Discussion**

Transport Canada Civil Aviation (TCCA), which is the airworthiness authority for Canada, has issued Canadian Airworthiness Directive CF-2011-04, dated March 8, 2011 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified

products. The MCAI states:

[Canadian] Airworthiness Directive (AD) CF-2005-37 was issued on 11 October 2005 to address cracking of the outer wing fuel access panel, Part Number (P/N) 85714230-001. Similar cracking on an outer wing fuel access panel, P/N 85714231-001, has been reported. Further investigation revealed that certain fuel access panels may have seal grooves manufactured with non-conforming fillet radii which could lead to cracking. Cracking of the fuel access panel, if not corrected, could result in arcing and ignition of fuel vapor in the outer wing fuel tank during a lightning strike.

This [TCCA] directive mandates the inspection and replacement of the affected fuel access panels.

Required actions include an external detailed inspection of the outer wing access panels for rivets of the identification plate, and an internal inspection of panels without rivets to determine if the identification plate is installed, and replacing the fuel access panel if necessary. As an option, this proposed AD would allow repetitive external detailed inspections for cracking of the fuel access panels and, replacing if necessary, until the internal inspection is done. This proposed AD would also require eventually replacing the affected fuel access panels with a new fuel access panels. You may obtain further information by examining the MCAI in the AD docket.

#### **Relevant Service Information**

Bombardier has issued Service Bulletin 84-57-22, Revision B, dated February 16, 2011; and Service Bulletin 84-57-23, Revision B, dated February 16, 2011. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

### **FAA's Determination and Requirements of This Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

### **Costs of Compliance**

Based on the service information, we estimate that this proposed AD would affect about 74 products of U.S. registry. We also estimate that it would take about 36 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$33,632 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$2,715,208, or \$36,692 per product.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:

**Bombardier, Inc.:** Docket No. FAA-2012-0298; Directorate Identifier 2011-NM-072-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes; certificated in any category; serial numbers 4001 and 4003 through 4106 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 57: Wings.

**(e) Reason**

This proposed AD was prompted by reports of cracking of certain fuel access panels of the outer wing. We are issuing this AD to prevent cracking of fuel access panels, which could result in arcing and ignition of fuel vapor in the outer wing fuel tank during a lightning strike.

**(f) Compliance**

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**(g) Inspection and Replacement of Part Number (P/N) 85714231-001**

Within 600 flight hours after the effective date of this AD, do an external detailed inspection of the outer wing access panels having P/N 85714231-001 to locate the rivets of the identification plates, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-57-22, Revision B, dated February 16, 2011. If the rivets of the identification plate are found, no further action is required by this paragraph for that fuel access panel. If the rivets of the identification plate cannot be found: Before further flight, do the actions specified in paragraph (g)(1) or (g)(2) of this AD.

(1) Remove fuel access panels having part number (P/N) 85714231-001 and inspect the panels to determine if the identification plate is installed, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-57-22, Revision B, dated February 16, 2011. If the identification plate is found: No further action is required by paragraph (g) of this AD for that fuel access panel.



(i) If the identification plate cannot be found, and the job detail number stamped on the underside of the access panel does not match any of those listed in table 1 of the Accomplishment Instructions of Bombardier Service Bulletin 84-57-22, Revision B, dated February 16, 2011: No further action is required for paragraph (g) of this AD for that fuel access panel.

(ii) If the identification plate cannot be found, and the job detail number stamped on the underside of the fuel access panel does match any of those specified in table 1 of the Accomplishment Instructions of Bombardier Service Bulletin 84-57-22, Revision B, dated February 16, 2011: Before further flight, replace the fuel access panel with a new fuel access panel having P/N 85714231-003, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-57-22, Revision B, dated February 16, 2011.

(2) Do an external detailed inspection on fuel access panels having P/N 85714231-001 for cracking, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-57-22, Revision B, dated February 16, 2011. If no cracking is found: Repeat the inspection thereafter at intervals not to exceed 600 flight hours until the replacement specified in paragraph (g)(2)(i) of this AD, or the inspection specified in paragraph (g)(1) of this AD, is done.

(i) If the fuel access panel is found cracked during any inspection required by this AD: Before further flight, replace the fuel access panel with a new fuel access panel having P/N 85714231-003, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-57-22, Revision B, dated February 16, 2011.

(ii) Within 6,000 flight hours after the initial inspection required by paragraph (g)(2) of this AD, do the actions required in paragraph (g)(1) of this AD, unless the replacement required by paragraph (g)(2)(i) of this AD is done.

**(h) Inspection and Replacement of P/N 85714232-001**

Within 1,200 flight hours after the effective date of this AD, do an external detailed inspection of the outer wing access panels having P/N 85714232-001 to locate the rivets of the identification plates, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-57-23, Revision B, dated February 16, 2011. If the rivets of the identification plate are found: No further action is required by this paragraph for that fuel access panel. If the rivets of the identification plate cannot be found: Before further flight, do the actions in paragraph (h)(1) or (h)(2) of this AD.

(1) Remove fuel access panels having P/N 85714232-001 and inspect the panels to determine if the identification plate is installed, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-57-23, Revision B, dated February 16, 2011. If the identification plate is found: No further action is required by paragraph (h) of this AD for that fuel access panel.

(i) If the identification plate cannot be found, and the job detail number stamped on the underside of the access panel does not match any of those specified in table 1 of the Accomplishment Instructions of Bombardier Service Bulletin 84-57-23, Revision B, dated February 16, 2011: No further action is required by paragraph (h) of this AD for that fuel access panel.

(ii) If the identification plate cannot be found, and the job detail number stamped

on the underside of the fuel access panel does match any of those specified in table 1 of the Accomplishment Instructions of Bombardier Service Bulletin 84-57-23, Revision B, dated February 16, 2011: Before further flight, replace the fuel access panel with a new fuel access panel having P/N 85714232-003, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-57-23, Revision B, dated February 16, 2011.

(2) Do an external detailed inspection on fuel access panels having P/N 85714232-001 for cracking, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-57-23, Revision B, dated February 16, 2011. If no cracking is found: Repeat the inspection thereafter at intervals not to exceed 1,200 flight hours until the replacement specified in paragraph (h)(2)(i) of this AD, or the inspection specified by paragraph (h)(1) of this AD is done.

(i) If the fuel access panel is found cracked during any inspection required by this AD: Before further flight, replace the fuel access panel with a new fuel access panel having P/N 85714232-003, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-57-23, Revision B, dated February 16, 2011.

(ii) Within 12,000 flight hours after the initial inspection required by paragraph (h)(2) of this AD, do the actions required by paragraph (h)(1) of this AD, unless the replacement required by paragraph (h)(2)(i) of this AD is done.

**(i) Parts Installation**

As of the effective date of this AD, no person may install a fuel access panel having P/N 85714231-001 and a job detail number listed in table 1 of the

Accomplishment Instructions of Bombardier Service Bulletin 84-57-22, Revision B, dated February 16, 2011; or having P/N 85714232-001 and a job detail number listed in table 1 of the Accomplishment Instructions of Bombardier Service Bulletin 84-57-23, Revision B, dated February 16, 2011; on any airplane.

**(j) Credit for Previous Actions**

This paragraph provides credit for inspections and fuel access panel replacements required by this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-57-22, Revision A, dated December 9, 2010; or Bombardier Service Bulletin 84-57-23, Revision A, dated December 9, 2010.

**(k) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York ACO, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district

office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(I) Related Information**

Refer to MCAI Canadian Airworthiness Directive CF-2011-04, dated March 8, 2011, and the following service information, for related information.

(1) Bombardier Service Bulletin 84-57-22, Revision B, dated February 16, 2011.

(2) Bombardier Service Bulletin 84-57-23, Revision B, dated February 16, 2011.

Issued in Renton, Washington, on March 16, 2012.

Ali Bahrami,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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